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(54) Title: ALKYNE DERIVATIVES AS TRACERS FOR METABOTROPIC GLUTAMATE RECEPTOR BINDING

(57) Abstract: The present invention is directed to isotopically labeled alkyne derivative compounds, particularly ¹¹C, ¹³C, ¹⁴C, ¹⁸F, ¹⁵O, ¹³N, ³⁵S, ²H, and ³H labeled compounds. In particular, the present invention is directed to ¹¹C, ¹³C, ¹⁴C, ¹⁸F, ¹⁵O, ¹³N, ³⁵S, ²H, and ³H labeled heterocyclic alkynes and methods of their preparation. The present invention further includes a method of use of the ¹¹C, ¹⁸F, ¹⁵O, or ¹³N labeled heterocyclic alkyne compounds as tracers in positron emission tomography (PET) imaging, particularly in the study of metabolic conditions in mammals, specifically conditions modulated by metabotropic glutamate receptors subtype 5 (mGluR5).

WO 2004/038374 A3

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61P 35/00; A61K 31/44, 31/425; C07D 213/62, 277/20, 417/00

US CL : 514/333, 335, 357, 365; 546/261, 269.7; 548/202

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 514/333, 335, 357, 365; 546/261, 269.7; 548/202

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
CAS ONLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	COSFORD et al. [3H]-Methoxymethyl-MTEP and [3H]-Methoxy-PEPy: Potent and Selective Radioligands for the Metabotropic Glutamate Subtype 5 (mGlu5) Receptor. Bioorganic & Medicinal Chemistry Letters, 10 February 2003, Vol. 13, No. 3, pages 351-354, especially page 351.	1-22
X	WO 01/16121 A1 (MERCK & CO., INC.) 08 March 2001 (08.03.2001), see entire document.	1-22

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

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